

ABSTRAK

Daun jambu biji mengandung flavonoid, alkaloid, saponin yang diduga memiliki efek antibakteri terhadap *Propionibacterium acnes* penyebab jerawat, namun penelitian tentang efek daun jambu biji terhadap pertumbuhan *Propionibacterium acnes* belum dilakukan. Penelitian ini bertujuan untuk mengetahui pengaruh daun jambu biji terhadap zona hambat pertumbuhan bakteri *Propionibacterium acnes*.

Jenis penelitian ini adalah *post test only control group design* dimana daun jambu biji di ekstrak dengan metode maserasi menggunakan etanol 96%. Kelompok perlakuan terdiri dari ekstrak daun jambu biji dengan konsentrasi 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% dan 100%, sedangkan pada kelompok positif yaitu klindamisin 1%. Pada uji antibakteri menggunakan metode Kirby-Bauer (Disk Diffusion Method). Diameter daerah hambat pertumbuhan *Propionibacterium acnes* terhadap ekstrak daun jambu biji di ukur menggunakan jangka sorong yang di inkubasi selama 48 jam.

Diameter daerah hambat ekstrak daun jambu biji pada konsentrasi 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100% dan klindamisin 1% terhadap *Propionibacterium acnes* masing-masing secara berurutan adalah 0 mm; 8,5 mm; 10,83 mm; 12,55 mm; 14,43 mm; 14,75 mm; 15,4 mm; 15,63 mm; 16 mm; 16,68 mm; 17,6 mm. Data dianalisis dengan uji statistik non parametrik yaitu *Kruskal Wallis* dan didapatkan nilai p sebesar 0,00 , yang menunjukkan bahwa setidaknya terdapat dua kelompok yang memperlihatkan perbedaan pada daerah hambat pada antar konsentrasi secara signifikan.

Dari hasil dapat disimpulkan bahwa ekstrak daun jambu biji efektif berpengaruh terhadap pertumbuhan bakteri *Propionibacterium acnes* sehingga berpotensi sebagai obat jerawat alami.

Kata Kunci: antibakteri, in vitro, daun jambu biji, jerawat.

ABSTRACT

Guava leaves containing flavonoids, alkaloids, saponins has been shown to have an antibacterial activity against Propionibacterium acnes. however, the effects of guava leaves on the growth of Propionibacterium acnes has not been well studied. This study aimed to determine the effect of guava leaf on the growth of Propionibacterium acnes. In this post test only control group design study, the guava leaf was extracted using maceration method with 96% ethanol. the bacterial cultures were treated with a serial dose of guava extract (0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% and 100%). The positive group were treated with clindamycin 1 %. After incubated for 48 hours, the culture were subjected to antibacterial tests using the Kirby-Bauer method (Disk Diffusion Method) to evaluate the diameter of zone of inhibition. The zone of inhibition of guava leaf extract treated with 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100% and clindamycin 1% against Propionibacterium acnes were 0 mm; 8.5 mm; 10.83 mm; 12.55 mm; 14.43 of mm; 14.75 mm; 15.4 mm; 15.63 mm; 16 mm; 16.68 mm; 17.6 mm, repectively. the data were analyzed by non-parametric statistical test and the Kruskal. In conclusion, guava leaf extract has an effect on the growth of Propionibacterium acnes. thus, it has a potential as a natural acne cure.

Keywords: antibacterial, in vitro, guava leaves, acne.